Southern Regional Research Laboratory
New Orleans 19, Louisiana
May 26, 1947

To: Director and Division Heads
From: Survey and Appraisal Section, Cotton Processing Division

Subject: SURVEY NOTES

L I N T C O T T O N

TEXTILE DEMAND SLACKENS

There are now decided indications that the demand for textiles is beginning to slacken. Bibb Manufacturing Company (one of the strongest, most efficient of all cotton textile manufacturing concerns) has just discontinued the third shift at two of its plants with Charles C. Hertwig, Vice-president, stating that "a general slump throughout the cotton textile industry" had caused the production set back. In all, about 500 workers at Macon, Georgia alone have been released. (Daily News Record, May 14, 1947).

COTTON TEXTILE INDUSTRY IN GOOD POSITION

Despite the current decline in demand, it appears that the cotton textile industry is in a much stronger position that it was prewar due to (1) an increase of 12 million in the population in the last decade, (2) a decline of 2 million spindles in operating equipment, (3) an increase of 130 percent in national income, and (4) greatly increased exports. Last year, although cotton consumption reached a peacetime high of 9.8 million bales, only 66.85 square yards of cotton cloth were made available per person as compared with 67.00 square yards in 1939. Even if high incomes and exports decline, the cotton textile industry should still be in a much better position than it was in 1939.

COTTON SURPLUS GONE

Domestic consumption of cotton continued at a high rate in March, totaling 875,124 bales, and in April, totaling 890,000 bales (New York Cotton Exchange estimate). This cotton year (ending July 31), it is expected that disappearance will total 13-1/4 million bales (10 million bales United States consumption, 3-1/4 million bales exports), as compared with 8-1/2 million bales ginned plus 1/4 million bales imported. As a result the carryover on August 1, 1947 is expected to total only about 3 million bales, the smallest carryover since the 2.3 million bales of 1929. (In other words, the huge carryovers of former years, such as the 11.0 million bales in 1945, are, for the time being at least, a thing of the past.)

Cotton consumption and stocks, and spindle hours in cotton mills.

	March 1947	February 1947	March 1946	March 1940
Consumption, bales	875,124	840,463	804,290	627,194
On hand, 1,000 bales	5,612	6,513	11,008	13,006
Active spindles, billions	10.0	9.6	9.1	7.9
Spindle activity, percent of 80-hour capacity	125.4	125.6	101.7	94.6

PRICE OF COTTON

Price of cotton on May 15th was 36.1 cents per pound in the 10 southern markets, or 37.50 cents per pound delivered at Group B mills. Current parity price, on a 10-market basis, is around 31 cents. (1947 Government loan rate will be based on 92.5 percent of parity as of July 15.) As is indicated below, mill margins (spread between cloth and cotton prices) in April 1947 were more than double what they were a year ago.

Prices of raw cotton, rayon staple, and cotton fabrics, and cotton mill margins in cents.

	April 1947	November 1946	April 1946	Average 1939-40
Cotton, Middling 15/16" delivered at mills, lb.	36.57	32.20	28.83	11.01
Rayon, viscose staple, equivalent price 1/, lb.	28.48	23.67	22.25	22.25
Cotton fabrics, average 17 constructions 2/	86.15	71.25	50.37	22.86
Mill margins 3/, average, 17 cotton fabrics	51.25	40.52	23.44	12.68

1/ Cost to mill of same amount of usable fiber as supplied by one pound of cotton (rayon price X .89).
2/ Differences between cloth prices and prices of cotton.
3/ Price of approximate quantity of cloth obtainable from a pound of cotton with adjustments for salable waste.

COTTON EXPORT SUBSIDY REDUCED

The export subsidy on American cotton was reduced from two cents to one-half cent per pound effective May 8th. (Original export subsidy of four cents per pound was cut to two cents last February.)

Cotton Trade Journal, May 9, 1947.

ACREAGE IN COTTON REPORTED INCREASED

According to a survey made by the Journal of Commerce (May 1) farmers intend to plant 20.0 million acres to cotton this year, a 15.1 percent increase over the 18.2 million acres planted in 1946 (which yielded 8,640,000 bales), but below the 1947 goal of 23.1 million acres.

Journal of Commerce, May 7, 1947, p. 19.

SEA ISLAND COTTON

Sea Island cotton, the "aristocrat of cottons," was making a determined comeback prior to the outbreak of war, using new methods, when it was dealt another death blow by labor shortages and price control. It is now being preserved from extinction by a few farmers and by the Florida State Agricultural Experiment Station, which raises a little annually for seed. Now, in spite of Sea Island's present obscurity, workers of the Florida Department of Agriculture rally hopefully to its defense. They say DDT dusted from airplanes would prove as effective against the boll weevil as the old method of individual plant attention, adding that this procedure together with "flame cultivation"--burning weeds out instead of pulling them-- would leave actual picking as the only extensive hand operation.

Textile Bulletin, March 1, 1947.

COTTON PROCESSING MACHINERY

NEW OPENING AND CLEANING MACHINERY REPORTED DEVELOPED BY GOLDMAN

New machinery which is said to take cotton from the bale and process it into a uniform lap at 500 pounds per hour is reported to have been developed "on order and risk of a large Eastern mill" by Fibre Products Laboratory, Newark (This is the Goldman concern of unwoven fabric fame). New machinery operates thusly: (1) Opening machine reduces cotton from bale to flakes of definite size (all reduction to size is done in this unit). (2) Cotton travels almost vertically to Unit 2, condensing unit, causing foreign matter to drop by gravity. (3) Cotton passes " to a third unit which has progressively finer pinned rolls which work on the stock against a pinned cylinder. The cylinder emits controlled jets of air, which blow through the web, carrying with it the leaf particles." (4) Material than goes to another condenser unit where cleaning is completed, and from there (5) lap goes to the lappin head which compresses the lap by pneumatic pressure (it is claimed this permits uniform density). It is claimed the machinery will permit cards to be used merely for attenuating purposes.

Daily News Record, May 12, 1947, p. 31.

This machinery was "contracted for by a 'North Carolina mill, one of the largest;' is being built in a small plant at Lowell, Massachusetts, at cost of $50,000.

Daily News Record, May 13, 1947, p. 25.

H & B EXPANSION AND PROGRESS

H & B American Machine Company (one of three United States makers of cotton spinning machinery) now has 1,989 employees as compared with 809 when it changed hands on April 1, 1946. Plans call for a 1947 production volume of $10.0 million compared with 1946 sales of $2.7 million, and 1945 sales of $4.1 million. All production for this year has been sold with additional business running into 1948.

The company has made considerable engineering progress, chiefly in refinements on present basic designs. Extruded alloy aluminum spindle rails, ring rails, and roller beams have been adopted as standard equipment on spinning frames; and extruded alloy aluminum roller beams and snug rails on roving frames.

American Wool & Cotton Reporter, April 24, 1947.

COTTON PRODUCTS

NEW PLANT CAPACITY FOR OPEN-MESH BAGS

Bemis Bros. Bag Company intends to open a new plant in Jacksonville, Florida, and will alter the structure of the old building and install machinery about September of this year. The new plant will make and print open-mesh bags from cotton and paper for citrus fruits and fresh vegetables, and textile bags from cotton and burlap cloth, largely used for commercial feeds, fertilizer, and potatoes. Employment will be given to 75 persons, mostly women.

Journal of Commerce, April 28, 1947.

The Chase Bag Co., at its Reidsville, North Carolina unit, has under construction an addition to its factory at Harris and Morehead Streets, which will add 1,600 square feet of floor space and will add "to the plant's (capacity for packing) larger bags of the "cotton and cotton open-mesh type." The new factory is

expected to be in operation by next March.

Journal of Commerce, May 5, 1947.

[These plant expansions indicate a growing market for open-mesh bags.]

COMMERCIAL EXPLOITATION OF SHIRLEY CLOTH

"Large scale exploitation in England and elsewhere of 'Ventile' cotton weather-proof cloth, outstanding British textile development (credited to Shirley Institute) acclaimed for its weight as the most windproof, waterproof and yet 'breathing' fabric so far seen on any market, is delayed by continued fuel and labor shortage in Lancashire's cotton textile industry." A few "Ventile" garments have been exported, including some raincoats, to the American market. A "Ventile Fabrics Association of Great Britain," with membership of 63 firms, was organized to control quality and now has licensed 87 converters and 83 garment manufacturers. The "Ventile" trade-mark, advertising quality, has been restricted in 14 countries, including Canada but not the United States (Where "Ventile" was not registrable so, an alternative one has been applied for"). "The specification of 'Ventile' fabric does not permit a head below 60 to 80 cms." (many samples exceed 100 cms.) in a hydrostatic water test, compared with penetration at 30 cms. to 60 cms. for "good quality twill raincoat materials."

Daily News Record, May 6, 1947, p. 21.

COMPETITIVE MATERIALS

ARALAC PRICE REDUCED

Price of Aralac staple fiber was reduced 20 percent about May 15th, bringing the price of 70's, 60's, and 50's grade textile staple down to 55 cents a pound. This compares with a price of 64 cents per pound from October 1941 to November 1946, and 75 cents per pound from then until May 1947. The reduction was made as the result of increasing domestic supplies and of falling prices for casein.

Daily News Record, May 5, 1947

INCREASED WOOL RESEARCH URGED

According to "Trends in Textiles" column in Journal of Commerce, New York, for May 9th, a total of $213,500,000 was made available to the Department of Agriculture from import duties on raw wool ("Section 32 funds") during the past 6 years, but "not one cent has been used to prop up the sagging domestic wool growing industry." During 1946, $42,600,000 in revenue was "obtained by the Agriculture Department, and a total of $20,055,000 was expended for the direct and indirect benefit of a competing fiber-cotton [$1,160,000 for research on cotton bags, $1,780,000 for cotton in writing paper experiments, and $16,800,000 for cotton export subsidies]. Spokesmen for Western wool growers, notably C. J. Fawcett, General Manager of National Wool Marketing Association, are bringing "this situation into the light in the hope that popular feeling would force Secretary Anderson to show a little more interest in the American sheep producer." Government and independent interests have been "requesting Congress to increase grants to public and private institutions endeavoring to raise the level of American wool research.

"Trends in Textiles" column, Journal of Commerce, May 9,1947, p.14.

GLASS YARN DYEING PROCEDURE

Glass yarns can now be dyed with ordinary dyes by usual methods, according to Owens-Corning Fiberglas Corporation, as result of new process whereby yarns are coated, as they are formed, with a thin protein film of the gelatin type. The film represents only one to two percent of finished yarn weight. A minimum of 80 hours sunfastness on decorative fabrics is claimed.

Daily News Record, May 12, 1947.

CELANESE TEXAS PLANT LOWERS COST OF PRODUCING ACETIC ACID

Celanese Corporation's new $20 million chemical plant in Texas "is the first large chemical plant successfully to combine oxygen directly with petroleum gases (butane and propane), a technique known as direct oxidation. The advantage is that it avoids a number of costly intermediate steps. Two main products are acetic acid and formaldehyde (adds one-third to country's supply). Acetone is another big volume product. "The new low cost production of these materials is coming to the rescue of the fast growing plastics industry." (And may be of importance in connection with the price of acetate rayon.) Later this new plant will pour out a new chemical-- propionic acid.

Another new chemical never made before commercially is tetra hydrofurane - which has been found to be one of the best solvents for vinyl type plastics, and which also may be used in synthetic rubber, paints, and perhaps for adipic acid for nylon.

Celanese can easily switch to making something else, and can expand present facilities at comparatively little added expense. The plant has 700 employees working on four shifts. Most of the workers are in the laboratory or on maintenance.

Wall Street Journal, April 21, 1947

STEAM HOSE FOR FIGHTING OIL FIRES

A new type steam hose, employing spun glass yarn to gain maximum heat resistance, is said to increase greatly the steam volume used in smothering oil fires such as recently devastated Texas City.

Produced by the Goodyear Tire & Rubber Company, the new hose is capable of carrying 200 pounds of saturated steam at 388 degrees Fahrenheit for more than 300 hours under continuous flexing. This amount of pressure would char and burst ordinary hose, the manufacturer says.

In the development stage for several years, chief difficulty in perfecting the hose was getting a glass cord capable of withstanding maximum flexing required in steam service. The glass cord is made by the Owens-Corning Fiberglas Corp., and a bonding technique - developed by Goodyear during the war is used to achieve high adhesive strength between the hose's glass carcass, rubber tube and cover.

The new item is designed also for heavy-duty steam or hydraulic service in foundries, steel and paper mills, road construction, dock and railroad use.

Journal of Commerce, April 25, 1947.

BRITISH DEVELOP NEW CONTINUOUS RAYON SPINNING METHOD

LONDON, April 24.--High claims are being made for a new British process, called the Nelson process, for the continuous spinning (spinning, washing, drying, winding) of viscose rayon. An agreement has been signed between Lustrafil, Ltd., one of whose directors invented the process, and Dobson & Barlow, Ltd., textile machinery manufacturers, under which the latter will make the necessary spinning equipment.for sale within the territories of Europe (except Russia), India, China, Australia, New Zealand, Africa, Egypt, the Lebanon, Iraq, Palestine and Turkey. (United States and South America notably not included.)

Sir Amos Nelson, chairman of Lustrafil, is quoted as saying that the aim has been to spin a viscose rayon yarn that would weave without faults. He said they had evolved a cheaper process which produced a very good amount of fiber, a 30-filament yarn weaving without any trouble, and giving a soft warm fabric. It is claimed to be simpler and less costly than the Industrial process.

Journal of Commerce, April 25, 1947.

(Rights for Industrial Rayon's process in British Empire and Europe, etc., were purchased about 18 months ago by Courtaulds, largest English rayon producer and former parent company of American Viscose, for $5 million. American Viscose is reported to have their own continuous process for tire cord yarn and patents on such processes have been taken out by at least one other American rayon concern. Apparently process mentioned above is new competitor.)

PEANUT PROTEIN FIBER

Sessions, Inc., of Enterprise, Alabama, is installing machinery to manufacture raw material for "a new protein fiber," utilizing a solvent method of extracting oil from peanuts. The raw material will be shipped to a Northern mill (name not disclosed) for processing. "It is pointed out here that much recent work on developing the fiber from proteins has been done at the Southern Regional Research Laboratory."

Journal of Commerce, New York, May 3, 1947.

Three large chemical firms have undertaken production of textile fiber from peanut protein. They are Virginia-Carolina Chemical Company at Richmond (reported prepared to enter commercial production), Aralac, Inc. of Taftsville, Connecticut, and Sessions, Inc. of Enterprise, Alabama.

Textile Bulletin, May 1, 1947.

T E X T I L E R E S E A R C H N O T E S

NEW INSTITUTE OF TEXTILE TECHNOLOGY OFFICERS

William M. Banks of Grantville, Georgia, was elected chairman of the Board of the Institute of Textile Technology at its annual meeting on May 12th, succeeding Fuller Callaway, who remains on board. Luther Hodges of Marshall Field & Co. was elected vice-chairman; Ward Delaney, president; Roger Milliken of Deering, Milliken, was reelected treasurer; M. Allen of Providence, Rhode Island, was reelected secretary. Plans were made for construction of a library building as soon as possible.

Daily News Record, May 13, 1947.

TEXTILE FOUNDATION RESEARCH

According to annual report, the Foundation spent $311,342 on research projects, conferences of textile school educators and publications. Four fundamental projects are now underway: (1) Mechanical properties of fibers; (2) relaxation-bire-fringence studies; (3) organic chemical studies of starch and cellulose structures; and (4) sorption and swelling studies. The Foundation "also has carried on research for the Army Signal Corps (action of various fibers in relation to humidity) and the Quartermaster Department (textile degradation).

Daily News Record, May 6, 1947, p. 24.

The Foundation's Board has voted to establish, jointly with Textile Research Institute, a Textile Research Information Service, to set "research material into the hands of those who should use it."

Release dated April 30.

MILTON HARRIS NAME CHANGED

Milton Harris Associates, 1246 Taylor Street, N. W., Washington, D. C., has changed its name to Harris Research Laboratories and formed a new organization, Harris Instruments, Inc. Harris Research Laboratories will be staffed by the personnel of the present organization, continuing its program of research, development, and consultation for the textile and allied industries. Harris Instruments will conduct instrumentation research and develop and manufacture new research instruments, especially for the textile industry.

Chemical and Engineering News, April 21, 1947.